

PROTOCOL

Unit-Source Data Processing

Introduction

The following protocol has been developed in order to support the Savannah River Site environmental remediation program. The protocol applies to the processing of data for use in the RFI/RI/BRA report.

This data processing protocol will be applied to each unit-source exposure group as specified in the Development of Exposure Groups protocol. An exposure group, abbreviated as 'EG', is the term used to refer to the set of data that will be used to calculate the exposure point concentration for a given media of potential concern.

Details

A. Determine Unit-Source Maximum Values

For each constituent in each exposure group for the unit-source samples, determine the maximum value from the detected concentrations only. Designate the value as the unit-source maximum value for the exposure group.

B. Calculate Unit-Source Average Values

For each constituent in each exposure group of unit-source samples, determine the arithmetic average value of all samples using a surrogate value for the non-detects. The Surrogates for Non-Detects Protocol provides further information for the use of surrogate values for non-detects.

C. Reasonable Maximum Exposure (RME) Values

1. Determine the UCL 95 value¹.
2. For each constituent in each exposure group for the unit-source samples, compare the UCL 95 value and the maximum value. Designate the lower of these two as the unit-source RME concentration for that constituent in that exposure group.

¹ "Supplemental Guidance to RAGS: Calculating the Concentration Term.", EPA Publication 9285.7-081, May 1992. The UCL 95 value is at the 95'th percentile upper confidence level of the population mean.